

Southwest Fisheries Science Center  
8604 La Jolla Shores Drive  
La Jolla, California 92037-1508

November 1, 2004

F/SWC1

## **CRUISE ANNOUNCEMENT**

**VESSEL:** NOAA Vessel *David Starr Jordan*

**CRUISE DATES:** Nov.4 – Nov 19, 2004. DJ-5-2

**PROJECT:** Shark Abundance Survey – Central California: Fisheries Resources Division

**ITINERARY:** Depart San Diego, California at 0800 on November 4, 2004 and proceed to predetermined sampling grounds off south and central California. Longline sampling operations will be conducted daily to survey primary and alternate longline sites for mako (*Isurus oxyrinchus*), blue sharks (*Prionace glauca*) and thresher sharks (*Alopias vulpinus*). The ship will make a short in-port in Monterey, CA on or about November 12<sup>th</sup> to exchange several scientific crew and equipment. The ship will return to MARFAC after completing sampling operations on the evening of November 19th.

**OBJECTIVES:** 1) Conduct the juvenile shark abundance survey, occupying up to three sampling stations per day as time permits, 2) Tag and release healthy sharks with conventional tags, OTC, and satellite archival tags for age and growth validation and environmental dynamics information. 3) Collect biological samples including reproductive, muscle and heart tissue, stomach contents, fin clips and whole specimens of sharks, billfish, tunas and of small coastal pelagic species (SCP). 4) Record species captured and size to determine distribution by size and area. 5) Test launch and recovery protocols for deploying hand launched CTD while underway.

**PROCEDURES:** The ship will transit on the day of departure to the first sampling station off Point Conception and commence survey operations at 0600 the following morning. The primary longline targeting mako and blue

sharks consists of approximately 200 hooks attached to a stainless steel main line wire two miles in length. Each hook will be baited with mackerel. The soak time for each set will last approximately 3 - 4 hours. Longline operations at nearshore stations will target thresher sharks with a 1-mile long monofilament line baited with sardines and or mackerel. Near shore stations will be from 20 to 100 fathoms water and offshore stations will be from 1000 to 2000 fathoms. The first 2 nearshore stations are scheduled with monofilament gear targeting thresher sharks off Point Conception (34°25'N 120°35'W and 34°31'N 120°33'W. The first offshore fishing station is approximately 34°55'N 122°05'W. At each subsequent sampling area, one to three fishing sets will be conducted daily. Because of the short November daylight period morning operations will usually begin in the pre-dawn hours. Sharks will be tagged with conventional spaghetti tags, satellite transmitting tags and tetracycline. Longline operations may be interrupted to make collections of schools of SCP and other species for food habits, age and growth studies and for population analysis with DNA.

**EQUIPMENT:**

1. Supplied by scientific party:

Standard stainless steel and monofilament, commercial longline gear  
2 miles in length, leaders and hooks.  
70 cases frozen bait (freezer space required)  
Sampling and tagging supplies  
Shark tagging platform  
400 gallon transport tank  
Bait tank  
Temperature and depth recorders  
Photographic and video equipment

2. Supplied by R/V *David Starr Jordan*

Trawl drum, longline fair-lead, necessary blocks and capstan for  
deploying and retrieving longline  
Freezer space for 70 cases of bait  
Work boat as needed

